State of Utah

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Department of
Environmental Quality

William J. Sinclair
Acting Executive Director

DIVISION OF AIR QUALITY
Cheryl Heying
Director

DAQE-IN0122260008-09

February 5, 2009

Michael Bosko
L-3 Communications Incorporated
640 N 2200 W
Salt Lake City, UT 84116

Dear Mr. Bosko:

Re: Intent to Approve: AO Updates
Salt Lake County; CDS B; Nonattainment and Maintenance Area
Project Number: N012226-0008

The attached document is the Intent to Approve for the above-referenced project. The Intent to Approve is subject to public review. Any comments received shall be considered before an Approval Order is issued. The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an Approval Order. An invoice will follow upon issuance of the final Approval Order.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. The project engineer for this action is Enqiang He, who may be reached at (801) 536-4010.

Sincerely,

John T. Blanchard, Manager
Minor New Source Review Section

JTB:EH:sa

cc: Salt Lake Valley Health Department

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

INTENT TO APPROVE: AO Updates

Prepared By: Enqiang He, Engineer
Phone: (801) 536-4010
Email: ehe@utah.gov

INTENT TO APPROVE NUMBER

DAQE-IN0122260008-09

Date: February 5, 2009

Computer Manufacturing Plant

Source Contact:
Mr. Michael Bosko
Environmental Manager
Phone: (801) 594-2035

John T. Blanchard, Manager
Minor New Source Review Section
Utah Division of Air Quality

ABSTRACT

L-3 Communications, Inc. operates an electronic communications equipment manufacturing plant in Salt Lake City, Salt Lake County. The source has submitted an NOI to update its AO (DAQE-AN0122260007-07). The source is located at 640 North 2200 West, Salt Lake City, Salt Lake County. Salt Lake City is a nonattainment area of the NAAQS for PM_{10} and SO_2, and is a maintenance area for ozone and CO. NSPS and NESHAP regulations do not apply to this source. Title V does not apply to this source. The source has limits on the natural gas consumption and VOC/HAP emissions, which remain unchanged. The potential to emit totals, in tons per year, will be the same as permitted in the AO (DAQE-AN0122260007-07) as follows: PM_{10} = 1.55, NO_x = 12.26, SO_2 = 0.36, CO = 8.77, VOC = 9.47 and HAPs = 5.81.

The NOI for the above-referenced project has been evaluated and has been found to be consistent with the requirements of UAC R307. Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an AO by the Executive Secretary of the Utah Air Quality Board.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notification of the intent to approve will be published in the Salt Lake Tribune and Deseret News on February 9, 2009. During the public comment period the proposal and the evaluation of its impact on air quality will be available for the public to review and provide comment. If anyone so requests a public hearing, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated. The proposed conditions of the AO may be changed as a result of the comments received.

Name of Permittee:

L-3 Communications Incorporated
640 N 2200 W
Salt Lake City, UT 84116

Permitted Location:

L-3 Communications Incorporated: Computer Manufacturing Plant
640 North 2200 West
Salt Lake City, UT 84116

UTM coordinates:419,600 m Easting, 4,515,000 m Northing
SIC code: 3669 (Communications Equipment, NEC)

Section I: GENERAL PROVISIONS

I.1 All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]

I.2 The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]

I.3 Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]

I.4 All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401]

I.5 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]

I.6 The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring. [R307-150]

I.7 The owner/operator shall comply with UAC R307-107. General Requirements: Unavoidable Breakdowns. [R307-107]

Section II: SPECIAL PROVISIONS

II.A The approved installations shall consist of the following equipment:

II.A.1 **The electronic equipment manufacturing plant**
Plantwide

II.A.2 One (1) Top Solvent Vapor Degreaser equipped with cover

Location: Printed Circuit Card Area, BLDG D

II.A.3 One (1) Solvent Cold Cleaning Station with two tanks equipped with cover

Location: Printed Circuit Card Area, BLDG D

II.A.4 One (1) Cold Solvent Cleaning Station equipped with cover

Location: Fast Reaction Area, BLDG E

II.A.5 One (1) Inline Wave Soldering Machine

Location: Printed Circuit Card Area, BLDG D

II.A.6 Vent hoods

Location:
a. Material Science, BLDG D
b. Machine Shop Print Booth, BLDG D
c. Coating/Bonding, 2 hoods, BLDG D
d. Six (6) Slotted type hoods*, BLDG D, Potting/Bonding
e. Six (6) vent hoods*, BLDG E, Plating

II.A.7 Vent hoods

Location:
f. One (1) slotted type vent*, BLDG D, Molding/Harnessing
g. Five (5) slotted type vents*, BLDG D, Alodine
h. Two (2) slotted type vents*, BLDG D, Stenciling
i. Chemical storage*, piped ventilation, BLDG C
j. Slotted type vent*, spraying, BLDG E, Pubs

II.A.8 Ovens

Location:
a. Coating/Bonding, BLDG D
b. Five (5) ovens*, BLDG D, Potting/Bonding
c. Despatch Oven vented*, BLDG D, Machine Shop
d. Two (2) ovens*, BLDG E, Plating
e. Seven (7) ovens*, BLDG E, Hybrid Lab
f. Mechanical convection oven*, BLDG E, Antenna Bid
g. Thermotron oven*, BLDG E, A Series

II.A.9 Ovens

Location:
h. One (1) Blue M and One (1) Thermotron ovens*, BLDG D, Brick
i. Thermotron*, BLDG D, Digital Test
j. Thermotron*, BLDG D, Lamps Test
k. Blue M*, BLDG D, CCA
l. Blue M, Yamoto, Blue M, and Despatch ovens*, BLDG D, SMT
m. Blue M*, BLDG C, Annex T series
n. Vitronics Soltec XPM*, BLDG D, CCA/SMT

II.A.10 Paint Booth Area

Location:
a. Recycle machine solvent*, vented, BLDG CA
b. Two Paint Booths equipped with filters in Building CA
c. Outside Product Painting areas
d. HVLP Spray guns
e. Recycle machine solvent*, BLDG CA (Quantity: four)

II.A.11 One (1) natural gas fired boiler rated at 4.6 MMBtu/hr

Location: Dln4, Rm

II.A.12 Three (3) natural gas fired standby generators rated at 30 kW(located at BLDG Z), 50 kW (located at BLDG E), and 75 kW (located at BLDG F)

II.A.13 Miscellaneous Equipment

Miscellaneous small boilers and hot water heaters, bench top electronic assembly soldering and cleaning, small bench top parts cleaning beakers (less than 1 liter), one diesel crane truck, forklifts including one diesel forklift, and solder pots* of various sizes

II.A.14 Four (4) diesel fuel mobile generators

II.A.15 One (1) standby power generator rated at 375 kW (555 Hp)

II.A.16 Four (4) natural gas boilers rated at 1.5, 3, 4.5, and 9.5 MMbtu/hr

II.A.17 Two (2) Die Max PVA, coating machines, piped ventilation located at BLDG D, P/B

II.A.18 One (1) diesel and One (1) natural gas fired emergency power systems* located at BLDG F

II.A.19 One (1) natural gas fired stand-by generator* rated at 88 kW located at BLDG C

II.A.20 One (1) natural gas fired stand-by generator* rated at 85 kW located at BLDG CA

II.A.21 One (1) natural gas fired stand-by generator* rated at 88 kW located at BLDG D

II.A.22 One (1) natural gas fired gas and steam boiler* rated at 3.266 MMBtu/hr located at BLDG D

II.A.23 One (1) natural gas fired boiler* rated at 3.65 MMBtu/hr located at BLDG E

II.A.24 Two (2) natural gas fired boilers* each rated at 3.08 MMBtu/hr located at BLDG F

II.A.25 One (1) natural gas fired steam boiler* rated at 760 Btu/hr located at BLDG E

II.A.26 One (1) natural gas fired gas boiler* rated at 2.36 MMBtu/hr located at BLDG D

* New equipment. There are four new ovens in II.A.8.b.

II.B Requirements and Limitations

II.B.1.a L-3 Communications shall notify the Executive Secretary in writing when the installation of the new equipment listed in Condition #II.A has been completed and is operational. To ensure proper credit when notifying the Executive Secretary, send your correspondence to the Executive Secretary, attn: Compliance Section.

If the construction and/or installation have not been completed within 18 months from the date of this AO, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke the AO in accordance with R307-401-18. [R307-401-18]

II.B.1.b Visible emissions from all emissions points shall not exceed 20 percent opacity except specified otherwise. Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [R307-401]

II.B.2 **Conditions on Natural Gas Combustion Equipment**

II.B.2.a Visible emissions from all natural gas combustion equipment shall not exceed 10% opacity. Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [R307-401]

II.B.2.b The following consumption limit shall not be exceeded:

20,323 decatherms of natural gas per rolling 12-month period

To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of consumption shall be kept for all periods when the plant is in operation. Consumption shall be determined by bill statements from the utility company. [R307-401]

II.B.2.c Emergency generators shall be used for electricity producing operation only during the periods when electric power from the public utilities is interrupted, or for regular maintenance of the generators. Records documenting generator usage shall be kept in a log and they shall show the date the generator was used, the duration in hours of the generator usage, and the reason for each generator usage.

Propane may be used as an alternate fuel supply during natural gas curtailment. If any other fuel is to be used, an AO shall be required. [R307-401]

II.B.3 **Conditions on Diesel fuel Combustion Equipment**

II.B.3.a Visible emissions from all diesel fuel combustion equipment shall not exceed 20% opacity. Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [R307-401]

II.B.3.b The sulfur content of diesel burned shall not exceed 0.5 percent by weight. Sulfur content shall be decided by ASTM Method D2880-71 or D-4294-89, or approved equivalent. The percent by weight of the sulfur contained in the fuel can be obtained from the fuel oil certifications. Certification of fuels shall be either by L-3 Communication Inc.'s own testing or test reports from the fuel marketer. Records of fuel supplier's test report on sulfur content shall be available on-site for each load delivered. [R307-401]

II.B.4 **Conditions on Paint Booths, Degreasers and Cleaning Stations**

II.B.4.a Visible emissions from all degreasing stations and painting operations shall not exceed 5%. Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [R307-401]

II.B.4.b The paint spray booths shall be equipped with a set of paint arrestor particulate filters, or equivalent, to control particulate emissions. All air exiting the booth shall pass through this control system before being vented to the atmosphere (outside building/operation). The filters shall be operated and replaced in accordance with manufacturer's recommendations. Equivalency determinations, when requested by the owner/operator, shall be submitted to the Executive Secretary for approval. [R307-401]

II.B.4.c The plant-wide emissions of VOCs and HAPs from the paint booths, degreasers, contact cement applicators, etc. and associated operations shall not exceed:

9.47 tons per rolling 12-month period for VOCs
0.50 lbs per rolling 12-month period for Chromium VI
43.02 lbs per rolling 12-month period for other Chromium compounds
11.70 lbs per rolling 12-month period for Formaldehyde
0.30 lbs per rolling 12-month period for Nickel
3,072.00 lbs per rolling 12-month period for Toluene
3,002.00 lbs per rolling 12-month period for Xylene
2.72 tons per rolling 12-month period for All other volatile HAPs*, and
5.81 tons all HAPs combined per rolling 12-month period

* Including Antimony, Benzene, Ethylene Glycol Dimethyl Ether, Epoxy Butane, Ethyl Benzene, Glycol Ether, Hexane, Hydroquinone, MEK, Methanol, Methyl Methacrylate, Methylene Chloride, Methyl Isobutyl Ketone, Poly Glycol Mono Ether, and Phenol.

Compliance with each of the limitations shall be determined on a rolling 12-month total. Based on the twentieth day of each month, a new 12-month total shall be calculated using data from the previous 12 months.

The VOC and HAP emissions shall be determined by maintaining a record of VOC and HAP emitting materials used each month. The record shall include the following data for each material used:

A. Name of the VOC and HAPs emitting material, such as: paint, adhesive, solvent, thinner, reducers, chemical compounds, toxics, isocyanates, etc.

B. Density of each material used (pounds per gallon)

C. Percent by weight of all VOC and HAP in each material used

D. Gallons of each VOC and HAP emitting material used

E. The amount of VOC and HAP emitted monthly by each material used shall be calculated by the following procedure:

VOC = (% VOC by Weight)/100 x [Density (lb/gal)] x Gal Consumed x 1 ton/2000 lb

HAP = (% HAP by Weight)/100 x [Density (lb/gal)] x Gal Consumed x 1 ton/2000 lb

F. The amount of VOC or HAP emitted monthly from all materials used

G. The amount of VOCs or HAPs reclaimed for the month shall be similarly quantified and subtracted from the quantities calculated above to provide the monthly total VOC or HAP emissions. [R307-401]

II.B.4.d The VOC containing materials and VOC laden rags shall be stored in covered containers (except when in use). [R307-401]

PERMIT HISTORY

The final AO will be based on the following documents:

Is Derived From	the NOI date dated October 15, 2008
Supersedes	the AO (DAQE-AN0122260007-07) dated June 4, 2007

ACRONYMS

The following lists commonly used acronyms and their associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
ATT	Attainment Area
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by EPA to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CO	Carbon monoxide
COM	Continuous opacity monitor
DAQ	Division of Air Quality (typically interchangeable with UDAQ)
DAQE	This is a document tracking code for internal UDAQ use
EPA	Environmental Protection Agency
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
MACT	Maximum Achievable Control Technology
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO_x	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO_2	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
UAC	Utah Administrative Code
UDAQ	Utah Division of Air Quality (typically interchangeable with DAQ)
VOC	Volatile organic compounds